

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-100

WATER RECLAMATION REQUIREMENTS FOR:

NAPA SANITATION DISTRICT,
NAPA COUNTY AIRPORT AND TONY PILOTTI,
DUANE CHAMBERLAIN, AND
KIRKLAND CATTLE COMPANY,
NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The Napa Sanitation District presently operates the Soscol Sewage Treatment Plant for the Napa-American Canyon Wastewater Management Authority which discharges mixed domestic and industrial wastewater from the Soscol Plant into the Napa River, a water of the United States, under the National Pollutant Discharge Elimination System (NPDES). The Board has adopted a separate waste discharge requirements (NPDES Permit No. CA0037575) for this discharge.
2. The Soscol Treatment Plant consists of a series of four (4) oxidation ponds (342 acres of surface area in total) which receives partially treated effluent from the Imola Treatment Plant also operated by Napa Sanitation District as well as treated effluent from the American Canyon County Water District's sewage treatment facilities. Oxidation pond effluent receives secondary treatment and is discharged through an outfall to the Napa River during the wet weather period of November 1 through April 30. This discharge does not consistently receive a minimum initial dilution ratio of 10:1.

For discharge during the dry weather period of May 1 through October 31, the oxidation pond effluent receives further treatment at a 15.4 million gallons per day (MGD) physical-chemical treatment plant using lime or polymer and chlorination followed by recarbonation and dual media filtration when necessary. Currently, a portion of the dry weather effluent from the oxidation pond is reclaimed on lands of the Napa County Airport and the Somky Ranch.

3. The Napa Sanitation District (hereinafter called the Producer), by consultant's technical report dated October, 1983 has proposed to ultimately reclaim all wastewater effluent during the dry weather period of May 1 through October 31 by obtaining more land for spray irrigation use. Upon completion of the irrigation project, the Producer proposes to transport effluent from its oxidation ponds through pipelines to the following irrigation sites:
 - (a) Napa County Airport (Site 1) -- approximately 210 acres out of a total of 750 acres in this area located in the immediate adjacent area around the airport is currently being irrigated through wheel line irrigation system. The site is planted with

for fodder crops. Fagan Creek, a tidal creek tributary to the Napa River, runs through the site. No milking or non-milking animals are allowed to graze on this land. The site used for irrigation is currently owned by the Napa County and leased by Mr. Tony Pilotti for agricultural use. The Napa County Airport and Mr. Tony Pilotti are hereinafter called Users. The Board has adopted water reclamation requirements in Order No. 81-44 for this part of the reclamation project.

(b) Somky Ranch (Site II) -- a 290 acre parcel of pasture land located adjacent to the Soscol oxidation ponds, north of airport and south of Soscol Road. The site is sprayed via big gun traveller irrigation system. The Napa Sanitation District owns this parcel and has leased it to Mr. Duane Chamberlain for farming purposes. The District and Mr. Chamberlain are hereinafter Users. Only non-milking animals would be grazing on this property. The Board has adopted water reclamation requirements in Order No. 83-32 for this part of the reclamation project.

(c) Kirkland Ranch (Site III) -- consists of about 625 acres of the 2,900-acre Kirkland Cattle Company property located east of Highway 29 and north of Highway 12, approximately 388 acres of which has been purchased by the Napa Sanitation District. The Napa Sanitation District and the Kirkland Cattle Company are hereinafter Users. The site is mainly for pasture use and would be operated by Kirkland Cattle Company. Irrigation is to be accomplished through big gun traveller system. Only non-milking animals would be grazing on this property. The Board has not previously adopt water reclamation requirements for this part of the irrigation project.

Attachment A is a location map showing the relative locations of the above irrigation sites and is hereby made a part of this Order.

4. The producer, as the purveyor of the treated wastewater to the proposed sites, will operate and maintain the major transmission facilities.
5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on July 21, 1982. The water quality goals to be used in regulating water quality factors as set forth in the Basin Plan include maximum feasible reclamation or reuse of municipal, industrial, and agricultural wastewaters.
6. Section 13523 of the California Water Code provides that a Regional Board, after consulting with and receiving the recommendations of the State Department of Public Health, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water.
7. These water reclamation requirements are in conformance with the statewide reclamation criteria established by the State Department of Health Services as prescribed in Title 22, Section 60301 through

Section 60355, California Administrative Code.

8. The Napa Sanitation District determined on the basis of an initial study that the Kirkland Ranch irrigation project, as described, will have no significant adverse effect on the environment, and therefore adopted a Negative Declaration regarding this project dated September 25, 1984.
9. The Board has notified the producer, users, and interested agencies and persons of its intent to prescribe water reclamation requirements for the proposed uses listed in Finding 3.
10. The Board, in a public meeting, heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the Producer and Users, in order to meet the provisions contained in Division 7 of the California Water code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. The treatment, distribution or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. Reclaimed water use shall be confined to the areas identified in Finding 3 of this Order, and shown on Attachment A, unless written authorization has been obtained from the Board's Executive Officer.
3. Use of reclaimed wastewater under provisions of this Order shall be limited to irrigation of fodder, fiber, and seed crops, and pasturing of non-milking animals only. Milking animals are prohibited from grazing on the areas irrigated with reclaimed water. Reclaimed water shall not be used for irrigation of crops for human consumption.
4. Reclaimed water shall not be used as a domestic or animal water supply.
5. Fodder, fiber, and seed crops shall not be harvested when wet from spraying with reclaimed water.
6. No reclaimed water shall be allowed to escape from the designated use areas via surface flow or airborne spray.
7. No waste shall be applied to the irrigation sites in anticipation of or during rainfall, 48 hours after a rainfall, or when soils are saturated to a point where runoff is likely.
8. Surface drainage channels for the areas irrigated with reclaimed water shall be dammed to prevent reclaimed water runoff from entering surface waters.

B. Reclaimed Water Use Specifications

1. The Producer shall assure that the reclaimed water is at all times an adequately oxidized water that meets the following quality limits at all times:

In any grab sample:

Soluble Biochemical Oxygen Demand	15.0 mg/l, maximum
Dissolved Oxygen	1.0 mg/l, minimum
Settleable Solids	0.5 ml/l-hr, maximum
Dissolved Sulfides	0.1 mg/l, maximum

2. The Producer shall discontinue the diversion of reclaimed water to the Users during any period in which he has reason to believe that the limits specified in B.1 are not being met. The diversion of reclaimed water shall not be resumed until all conditions which caused the limits specified in B.1 to be violated have been corrected.
3. All equipment, including pumps, piping, valves, etc. with public access which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs and the Users shall make all necessary provisions, in addition, to inform the public that the liquid contained is reclaimed water and is unfit for human consumption.
4. The Users of reclaimed water shall manage its application so as to minimize mosquito breeding.
5. The use of reclaimed water shall not cause the degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use.
6. Areas with public access irrigated with reclaimed water shall be fenced and clearly identified with posted notices to the public.
7. For irrigation on Site I, a minimum setback distance of 50 feet from the Fagan Marsh and along the both sides of Fagan Creek must be kept at all times.
8. For irrigation on Sites II and III, reclaimed water shall not be applied within 100 feet of any seasonal or permanent wetland, flowing stream channels containing surface water, public highway, house, barn, well, or pond.

C. Provisions

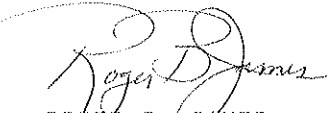
1. The Producer and Users shall comply with a Self-Monitoring Program as ordered by the Executive Officer.
2. In order to prevent potential contamination of the drinking water ponds operated by the American Canyon Water Treatment Plant and Jameson Canyon Water Treatment Plant which border the east of Kirkland Ranch, the Producer shall submit a detailed irrigation

plan for review and approval by the Executive Officer 90 days prior to the installation of any irrigation equipment within 1,000 feet of the property line of that two water treatment plants. Said irrigation plan shall evaluate the type of spray system, the appropriate setback distance from the two water treatment plants, as well as other necessary actions to eliminate the threat of potential health hazard.

3. The Producer and Users shall permit the Board or its authorized representatives in accordance with California Water Code Section 13267(c):
 - (a) Entry upon premises in which an effluent source is located or in which any required records are kept.
 - (b) Access to copy any records required to be kept under terms and conditions of this Order.
 - (c) Inspection of any monitoring equipment or method required by this Order.
 - (d) Sampling of any discharge and reclaimed water.
4. The Producer and Users shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed by the Users to achieve compliance with the water reclamation requirements.
5. In the event of any change in control or ownership of land or water reclamation facilities presently owned or controlled by the Producer and/or Users, the Producer and/or Users shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.
6. The Producer and Users shall file with the Regional Board a report on waste discharge at least 180 days before making any material change or proposed change in the character, location, or volume of the reuse.
7. The Board will review this Order periodically and may revise the requirements when necessary.
8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts; and
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse.
9. The water reclamation requirements prescribed by this Order supersedes the requirements prescribed by Order Nos. 81-44 and

83-32. Order Nos. 81-44 and 83-32 are hereby rescinded.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 18, 1985.

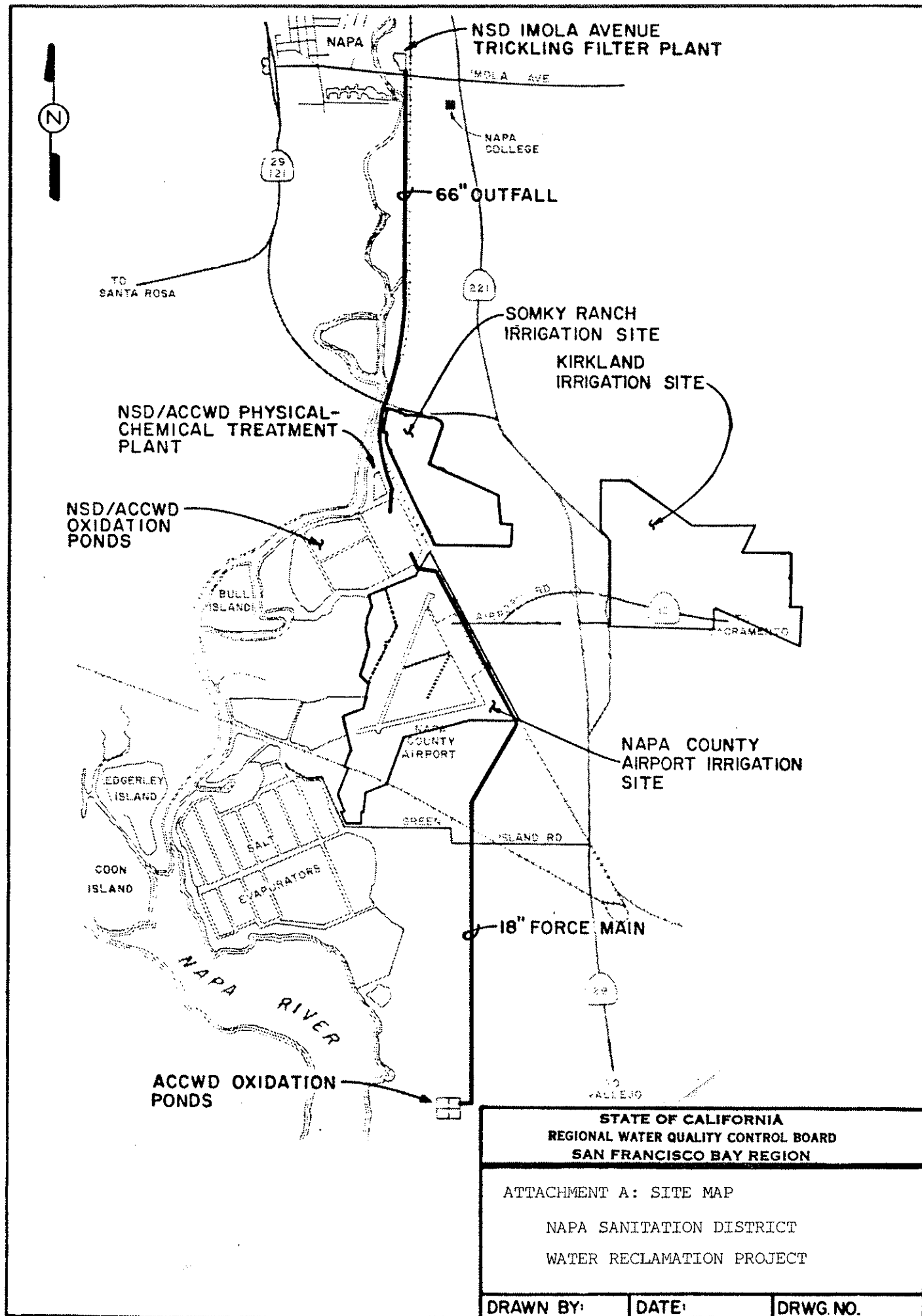


ROGER B. JAMES
Executive Officer

Attachments:

Location Map

Self-Monitoring Program



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

F I N A L
SELF-MONITORING PROGRAM
FOR

____ NAPA SANITATION DISTRICT _____
____ WATER RECLAMATION PROJECT _____
____ NAPA COUNTY _____

ORDER NO. ____ 85-100 _____

CONSISTS OF
PART A

PART A

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by waste discharger or reclaimed water user, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge or water reclamation requirements and prohibitions established by the Regional Board.
2. To facilitate self-policing by the waste discharger or reclaimed water user in the prevention and abatement of pollution arising from waste discharge or water reclamation.

II. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of "Standard Methods for the Examination of Water and Wastewater" prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

III. DEFINITION OF TERMS

1. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
2. Standard Observations
 - a. Land Retention or Pond Area

This applies both to liquid and solid wastes confined or unconfined.

- (i) Determine height of the freeboard at lowest point of

dikes confining liquid wastes.

- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the pond area and vicinity.

b. Periphery of Spray Irrigation Site

- (1) Evidence of reclaimed wastewater escaping the irrigation site through surface runoff or airborne spray. (Show affected area on a sketch.)
- (2) Odor: presence or absence, characterization, source, and distance of travel.
- (3) Evidence of mosquitoes breeding results from wastewater ponding in the irrigation area.
- (4) Warning signs or notices adequately posted to inform public that the water used for irrigation is reclaimed waste.

IV. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

1. DESCRIPTION OF SAMPLING STATIONS

a. EFFLUENT

<u>Station</u>	<u>Description</u>
E-1 thru E-'n'	Located at any point in the pipes between the oxidation ponds and each spray irrigation site when all the reclaimed water tributary to that irrigation site is present.

b. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
L-1 thru L-'n'	Located at ends and midpoints of the perimeter levees of the oxidation ponds.
I-1 thru I-'n'	Located at points spaced equidistantly around the periphery of the spray irrigation area.

Points shall be separated by not more than 1000 feet. A sketch showing the stations shall be submitted with the first monitoring report and subsequent self-monitoring report when station location is changed or a violation is noted.

2. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

- a. This self-monitoring program is applicable when wastewater is reclaimed for irrigation.
- b. The Producer and Users are required to perform observations, sampling, and analyses according to the schedule given in Table I.

V. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violation of Requirements:

In the event the Producer or the Users are unable to comply with the conditions of the water reclamation requirements and prohibitions due to:

- (a) maintenance work, power failure, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the Producer or the User shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problems from recurring.

2. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar month by the fifteenth day of the following month. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as operation modifications and/or facilities expansion. If the Producer or User has previously submitted a detailed time schedule for

correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Results of Analyses and Observations


Tabulations of the results from each required analysis and/or observations specified in Table I by date, time, type of sample, and station.

c. List of Approved Analyses

- (1) Listing of analyses for which the Producer is approved by the State Department of Health.
- (2) List of analyses performed for the Producer by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with the Water Reclamation Requirements established in Regional Board Order No. 85-100.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Producer or Users, and revisions will be ordered by the Executive Officer.


ROGER B. JAMES
Executive Officer

Effective Date: September 18, 1985

Attachments:

- a. Table I
- b. User's Self-Monitoring Report Form

ATTACHMENT A

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

SAMPLING STATIONS	E-1 thru E-'n'	L-1 thru L-'n'	I-1 thru I-'n'
Type of Samples	G	O	O
Flow Rate, (MGD)	D		
pH, (unit)	M		
Sulfides, Total & Dissolved (mg/l), (1)	M		
Dissolved Oxygen, (mg/l)	M		
Settleable Matter, (ml/l-hr)	2W		
All Applicable Standard Observations	2W	2W	W (2)

LEGEND FOR TABLE

G= Grab sample,
O= Observation,

D= Daily,
W= Once each week,
2W= Every two weeks,
M= Monthly,

Notes:

- (1). Analyze for this item only when Dissolved Oxygen is below 2.0 mg/l.
- (2). The User shall perform the designated observations and file the User's Report in Attachment B as part of the Self-Monitoring Report and transmitted with the Producer's monthly Self-Monitoring Report.

ATTACHMENT B

User's Self-Monitoring Report

1. Name of User: _____

2. Month and Year: _____

3. Circle dates that wastewater was received:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 26 27 28 29 30 31

4. Total gallons used for the month: _____

5. Required weekly observations: (Fill in the date of the inspection and write "yes" or "no" for each observation.)

Date					
Observed Escape of Wastewater from the Irrigation Site by Surface Flow or Airborne Spray					
Wastewater Used on Unauthorized Areas					
Odor from Wastewater					
Mosquitoes Breeding Resulted from Wastewater Ponding					
Warning Signs Properly Posted					
Public Contact with Wastewater					

If any of the observations were yes, a written report containing the following information shall be submitted:

- (1) State time when noted violation(s) was observed and show its location on a map.
- (2) Explain cause and extent of violation(s) observed.
- (3) Describe corrective action taken and the dates compliance was achieved and irrigation was resumed.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Signature of User Date